PROJECT DESCRIPTION A. EQUIPMENT TO BE SUPPLIED BY THE SHA GENERAL THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF MD 150 (EASTERN AVENUE) AND BENGIES ROAD AND MD 150 (EASTERN AVENUE) AND CARROLL ISLAND ROAD AND THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION ON MD 150 AND LYNBROOK ROAD IN BALTIMORE COUNTY, MARYLAND, MD 150 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION. ITEM NO. 900000 963010 971017 INTERSECTION OPERATION 973023 1. MD 150 (EASTERN AVENUE) AND BENGIES ROAD THE INTERSECTION OF WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 150 (EASTERN AVENUE) APPROACHES OPERATING CONCURRENTLY AND THE BENGIES ROAD APPROACHES OPERATING CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND MD 150 (EASTERN AVENUE) APPROACHES. AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE EAST LEG OF MD 150 (EASTERN AVENUE). 2. MD 150 (EASTERN AVENUE) AND CARROLL ISLAND ROAD THE INTERSECTION OF WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 150 (EASTERN AVENUE) APPROACHES OPERATING CONCURRENTLY AND CARROLL ISLAND ROAD APPROACH OPERATING ALONE. AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS CARROLL ISLAND ROAD. 3. MD 150 (EASTERN AVENUE) AND LYNBROOK ROAD THE INTERSECTION OF WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 150 (EASTERN AVENUE) APPROACHES OPERATING CONCURRENTLY AND THE LYNBROOK ROAD APPROACH OPERATING ALONE. THE FOLLOWING MINUMUM TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR THE WESTBOUND MD 150 (EASTERN AVENUE) APPROACH. STANDARD NO. MD-104.04-01 (SHOULDER WORK) STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE) CONTROLLER REQUIREMENTS STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE) 1. MD 150 (EASTERN AVENUE) AND BENGIES ROAD STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE) INSTALL A FULL-TRAFFIC-ACTUATED. EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL. TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER. VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS: 2. MD 150 (EASTERN AVENUE) AND CARROLL ISLAND ROAD

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. INSTALL VIDEO INTERFACE EQUIPMENT

(1-4 CAMERAS).

3. MD 150 (EASTERN AVENUE) AND LYNBROOK ROAD

MR. STEVE MARCISZEWSKI ASSISTANT DISTRICT ENGINEER - MAINTENANCE INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 321-2761 PHONE: (410) 787-7630 DIMENSION DIAGRAM

EQUIPMENT LIST "A"

3 EACH

- 1 EACH

2 EACH

- 2 EACH

MAINTENANCE OF TRAFFIC

PROJECT CONTACTS

DESCRIPTION

FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER

EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET

D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED -

R3-8(7) SIGN (60" X 30") - GROUND MOUNT

D-3(1) SIGN (VARIABLE × 16 IN.) - MAST ARM MOUNT

R3-7(R) SIGN (30 IN. \times 30 IN.) - GROUND MOUNT

R10-12 SIGN (36 IN. x 42 IN.) - MAST ARM MOUNT

W3-3 SIGN (36 IN. x 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT

R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS EASTERN AVENUE"

R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS CARROLL ISLAND ROAD"

STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)

STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

MR. MIKE PASQUARIELLO ASST. DISTRICT UTILITY ENGINEER

PHONE: (410) 321-2841

VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS

SHEET ALUMINUM SIGNS TO CONSIST OF :

MAST ARM MOUNT

QUANTITY

3 EACH

3 EACH

2 EACH

125 S.F.

MR. RANDALL SCOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC

PHONE: (410) 321-2781/2785

EQUIPMENT LIST "B"

ITEM NO.	OUANTITY	OR INSTALLED BY THE CONTRACTOR DESCRIPTION
203030	7 C.Y.	TEST PIT EXCAVATION
585618	100 L.F.	5 INCH HEAT APPLIED YELLOW PERMANENT PREFORMED
303010	100 2111	THERMOPLASTIC PAVEMENT MARKINGS
585620	420 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585624	260 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
655104	50 S.F.	4 INCH CONCRETE SIDEWALK
801004	25 C.Y.	CONCRÈTE FOR SIGNAL FOUNDATION
801104	48 L.F.	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	36 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
802501	510 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	85 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	1430 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	105 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805150	185 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT- SLOTTED
805155	180 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
805160	45 L.F.	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807202	3 EACH	METERED SERVICE PEDESTAL
810550	2 EACH	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
810555	2 EACH	MICROLOOP PROBE: 1000 FOOT LEAD IN CABLE
810601	4 EACH	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE
810605	2 EACH	NONINVASIVE DETECTOR, 1,000 FOOT LEAD IN CABLE
811001	13 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	20 S.F.	INSTALL GROUND MOUNTED SIGN
813015	105 S.F.	INSTALL OVERHEAD SIGN
813022	7 S.F.	REMOVE EXISTING GROUND MOUNTED SIGNS
813023	7 S.F.	RELOCATE EXISTING GROUND MOUNTED SIGN AND SUPPORTS
816001	6 EACH	VIDEO DETECTION CAMERA
816201	1 EACH	DISCRIMINATOR MODULE: 4 CHANNEL: NO. 764
816125	2 EACH	OPTICOM NO. 721 DETECTOR EYE
818004	2 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
818021	1 EACH	STEEL POLE WITH TWIN 50 FOOT MAST ARM
818041	1 EACH	STEEL POLE WITH SINGLE 60 FOOT MAST ARM
831010	1 EACH	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	16 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860274	6 EACH	12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
860284	54 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860288 860292	200 L.F. 3 EACH	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	175 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861106	1000 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	620 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1700 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	300 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862102	590 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
866103	1 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871117	2 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	2 EACH	CONTROL CABLE, 200 FOOT, VIDEO DETECTION CAMERA
800000	4 EACH	CONTROL CABLE, 300 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
800000	4 EACH	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	4 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION
800000	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT
800000	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	1 EACH	16.5 FT. STEEL "T" POLE WITH SINGLE 38 FT. MAST ARM
800000	1 EACH	16.5 FT. STEEL "T" POLE WITH SINGLE 60 FT. MAST ARM
800000	1 EACH	16.5 FT. STEEL "T" POLE WITH TWIN 50 FT. MAST ARM
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EQUIPMENT LIST "C'

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

9/20/2006



Baltimore, Maryland 21231

(410) 235-3450

SCALE:

MD 150 (EASTERN AVENUE) © BENGIES ROAD AND CARROLL ISLAND ROAD DRAWN BY: B. DONOWAY HECKED BY: N. LEARY S.H.A. NO.

LOG MILE:

BA3965177 SHEET NO. COUNTY:

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION

Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

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